

CLAIMS

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A1 1. A pharmaceutical composition for topical administration, comprising an active ingredient, a water insoluble polymer, and a solvent capable of dissolving the water insoluble polymer and compatible with water, and optionally containing other additive.

2. The pharmaceutical composition for topical administration as claimed in claim 1, which is an antibiotic, an antibacterial, an antimycotic, an antiviral, a bactericide, an anti-inflammatory, a local anesthetic, a vasoconstrictor, a steroid hormone, an antihistaminic, a prostaglandin, or an antispasmodic in an animal including human.

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A2 3. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 2, which is used for intraoral administration.

4. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 3, wherein the water insoluble polymer is one or more polymers selected from the group consisting of aminoalkyl methacrylate copolymer RS, aminoalkyl methacrylate copolymer E, methacrylate copolymer L, methacrylate copolymer S, ethylcellulose, polyvinyl acetal diethylaminoacetate, hydroxypropyl methylcellulose phthalate, hydroxypropyl methylcellulose acetate succinate, carboxymethyl ethylcellulose, cellulose acetophthalate, rosin, sandarac, celluloid, shellac, and zein.

5. The pharmaceutical composition for topical

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administration as claimed in any one of claims 1 to 4, wherein the solvent capable of dissolving the water insoluble polymer and compatible with water is one or more solvents selected from the group consisting of triethyl citrate, triacetin, tributyrin, diacetylene glycol, diethyl sebacate, diethyl phthalate, dibutyl phthalate, ethylene glycol, diethylene glycol, propylene glycol, dipropylene glycol, polyethylene glycol, glycerin, and acetyl glycerin fatty acid ester.

6. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 5, wherein an additive powder insoluble or slightly soluble in the solvent is incorporated as the other additive.

7. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 5, wherein a pH adjustor is incorporated as the other additive.

8. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 5, wherein an adhesive and/or a swelling agent are or is incorporated as the other additive.

9. The pharmaceutical composition for topical administration as claimed in any one of claims 1 to 5, wherein one or more additives selected from the group consisting of fats and oils, fatty acids and fatty acid derivatives such as salts or esters of the fatty acids, surface active agents, polyhydric alcohols, and higher alcohols are incorporated as the other additives.

10. The pharmaceutical composition for topical

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administration as claimed in any one of claims 1 to 9,
which is a sustained release preparation.

11. The pharmaceutical composition for topical
administration as claimed in claim 10, wherein the active
ingredient is a penem antibiotic.

12. A pharmaceutical base comprising a water insoluble
polymer, and a solvent capable of dissolving the water
insoluble polymer and compatible with water, and optionally
containing additive.

13. The pharmaceutical base of claim 12, which is used in
a pharmaceutical composition for topical administration.

14. Use of a water insoluble polymer for production of a
pharmaceutical composition for topical administration by
mixing with a solvent capable of dissolving the water
insoluble polymer and compatible with water.

15. Use of a solvent for production of a pharmaceutical
composition for topical administration by mixing with a
water insoluble polymer, the solvent capable of dissolving
the water insoluble polymer and compatible with water.

16. An agent for treatment of periodontal disease,
comprising an active ingredient for treatment of
periodontal disease, a water insoluble polymer, and a
solvent capable of dissolving the water insoluble polymer
and compatible with water, and optionally other additive.

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